

WHAT IS CLAIMED IS:

1. A processor system, which is provided with a built-in processor, a memory controller, an external bus interface that can connect an external processor  
5 from outside of a single semiconductor substrate, and a connection unit that mutually connects the built-in processor, the memory controller and the external bus interface on the single semiconductor substrate.
- 10 2. The processor system according to claim 1, wherein the connection unit includes a crossbar switch.
3. The processor system according to claim 1,  
15 wherein the connection unit includes a common bus.
4. The processor system according to claim 1, further comprising:  
a second built-in processor connected to the  
20 connection unit on the semiconductor substrate.
5. The processor system according to claim 1, comprising:  
enabling means for enabling either the built-in  
25 processor or the external bus interface.
6. The processor system according to claim 5,

wherein the enabling means enables the built-in processor and the external bus interface independently, respectively.

5           7. The processor system according to claim 1, wherein the built-in processor and the external bus interface are connected through a bus common to the connection unit.

10           8. The processor system according to claim 1, wherein the built-in processor and the external processor use in common programs stored in memory controlled by the memory controller.

15           9. The processor system according to claim 1, further comprising:

          an image data transfer bus connected with the connection unit; and

          an image output device interface or an image  
20 input device interface connected with the image data transfer bus on the semiconductor substrate.